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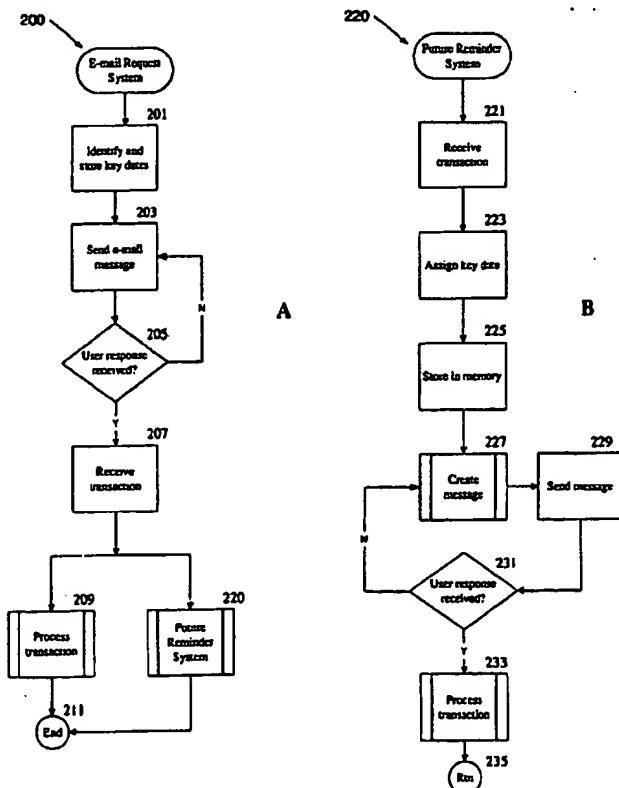
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(54) Title: **FUTURE REMINDER AND E-MAIL REQUEST SYSTEM**



(57) Abstract: An online future reminder and e-mail request system (201) stores prior transactions, assigns key dates (201/223), and creates messages (227). The system may further create messages based on key dates entered by the system or the user. The future reminder and e-mail request system allows a user to choose transaction options (261) and to repeat cyclical transactions. Use of the future reminder and e-mail request system may require a fee.

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FUTURE REMINDER AND E-MAIL REQUEST SYSTEM

RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application No. 60/181,811 and U.S. Provisional Application No. 60/181,837, filed February 11, 2000.

FIELD OF THE INVENTION

This invention relates generally to online computer transactions, and more particularly, to computerized future reminder and e-mail request systems.

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BACKGROUND OF THE INVENTION

Consumers are increasingly using the Internet for routine transactions over the Internet. As is well known in the art, consumer shopping and stock purchases are two of many types of transactions currently available. Many service providers are tracking purchases and online activity to provide consumers customized content and to improve customer satisfaction.

While tracking systems for consumer purchases are common for many e-commerce transactions, there are no systems for tracking other types of cyclical transactions.

SUMMARY OF THE INVENTION

An online future reminder and e-mail request system automatically creates messages based on key dates, such as holidays or prior user transactions, over the Internet. When a user conducts an online transaction, an online future reminder and e-mail request system stores the transaction information and assigns a key date based on the initial transaction date. On the assigned key date, the future reminder and e-mail

request system creates an e-mail message offering the user appropriate transaction options similar to that of the original transaction. Alternatively, the future reminder and e-mail request system message may be initiated by the arrival of designated key dates such as holidays, birthdays, or anniversary dates. In another aspect of the invention, the holidays may be selected based upon the nationality of the user. The message is automatically sent to the user requesting selection of one of the transaction options. The future reminder and e-mail request system receives a transaction option selection from the user. The future reminder and e-mail request system processes the transaction. A fee may be required for processing the selected transaction option. Alternatively, a single fee may be required for the use of the future reminder and e-mail request system. The future reminder and e-mail request system may also customize uploaded transactions.

A future reminder and e-mail request system provides consumers with a new service for reminding users of key dates and for automatically repeating cyclical transactions on the Internet.

The present invention describes systems, clients, servers, methods, and computer-readable media of varying scope. In addition to the aspects and advantages of the present invention described in this summary, further aspects and advantages of the invention will become apparent by reference to the drawings and by reading the detailed description that follows.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A is a diagram illustrating an overview of the operation of an embodiment of a networked future reminder and e-mail request system according to the invention;

FIGs. 1B and 1C are diagrams of a computer environment suitable for practicing the invention; and

FIGs. 2A – 2D are flow diagrams of methods to be performed by a server computer to administer a future reminder and e-mail request system according to an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

In the following detailed description of embodiments of the invention, reference is made to the accompanying drawings in which like references indicate similar elements, and in which is shown by way of illustration specific embodiments in which

the invention may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that logical, mechanical, electrical and other changes may be made without departing from the scope of the present invention. The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined only by the appended claims.

Beginning with an overview of the operation of the invention, FIG. 1A illustrates one embodiment of a networked future reminder and e-mail request system having a future reminder and e-mail request system server 101 that processes online transactions supplied from a client computer 103 by a user. The transactions may consist of sending electronic birthday cards, viewing photographs on a website, purchases on holidays, etc. The client computer 103 initiates a transaction 105 such as making a purchase on the server computer 101. In response, the server 101 stores the transaction information such as the item purchased and assigns a key date based on the date the transaction was initiated. Upon the arrival of the key date, the server creates a message 107 containing several transaction options illustrated as transaction option A109 and transaction option B111. For example, for a transaction involving the purchase of an item, the message may offer an option to purchase the same item and an option to purchase other similar items. In response to receiving the message 107, the client designates a selection 113 from the transaction options, e.g. transaction C115. Transaction C115 corresponds to the transaction option A109. It will be appreciated that more than one transaction option may be selected by the user. Upon receiving the user selection 113, the server 101 processes the selection 113. The server 101 posts the selection on a web site and publishes the selection 119 on the web for public viewing on the client computer 121. Alternatively, the user selection may be published on the web site, but in such a manner as to limit the display to private viewing on a client computer 121. In yet another aspect, the server 101 may send an e-mail message to a client computer 119 containing the selection 113.

In one embodiment of a future reminder and e-mail request system, as shown in FIG. 1B, the future reminder and e-mail request system server 101 hosts a future reminder and e-mail request system web site and is part of, or coupled to, an ISP

(Internet Service Provider) 135 to provide future reminders and e-mail requests over the Internet. The client computer 103 executes a conventional Internet browsing application to exchange data with the server 101. It is readily apparent that the present invention is not limited to Internet access and Internet web-based sites; directly coupled and private networks are also contemplated.

One embodiment of a computer system suitable for use as the future reminder and e-mail request system server 101 is illustrated in FIG. 1C. The computer system 140, includes a processor 150, a memory 155 and input/output capability 160 coupled to a system bus 165. The memory 155 is configured to store instructions which, when executed by the processor 150, performs the methods described herein. The memory 155 may also store content for the future reminder and e-mail request system. Input/output 160 provides for the delivery and display of the messages and transaction options or portions or representations thereof. Input/output 160 also encompasses various types of computer-readable media, including any type of storage device that is accessible by the processor 150. One of skill in the art will immediately recognize that the term "computer-readable medium/media" further encompasses a carrier wave that encodes a data signal. It will also be appreciated that the server 101 is controlled by operating system software executing in memory 155. Input/output and related media 160 store the computer-executable instructions for the operating system and methods of the present invention as well as the information required for future messages.

The description of FIGs. 1B and 1C are intended to provide an overview of computer hardware and other operating components suitable for implementing the invention, but is not intended to limit the applicable environments. It will be appreciated that the computer system 140 is one example of many possible computer systems that have different architectures. A typical computer system will usually include at least a processor, memory, and a bus coupling the memory to the processor. One of skill in the art will immediately appreciate that the invention can be practiced with other computer system configurations, including microprocessor systems, minicomputers, mainframe computers, and the like. The invention can also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network.

Next, the particular methods of the invention are described in terms of computer software with reference to flow diagrams. FIGs. 2A – 2D illustrate examples of embodiments of an E-mail Request System method 200, a Future Reminder System method 220, and the supporting methods executed by a computer, such as the server 101 of FIG. 1A. The methods constitute computer programs made up of computer-executable instructions illustrated as blocks (acts) 201 until 220 in FIG. 2A, blocks 221 until 235 in FIG. 2B, blocks 251 until 255 in FIG. 2C, and blocks 261 until 277 in FIG. 2D. It will be appreciated that not all of the blocks depicted in the flow diagrams are required to practice the invention. Furthermore, the functions represented by blocks may be performed in a different order without departing from the scope of the invention. Describing the computerized methods by reference to flow diagrams enables one skilled in the art to develop programs including instructions to carry out the methods on a suitable computer (the processor of the computer executing the instructions from computer-readable media). If written in a programming language conforming to a recognized standard, such instructions can be executed on a variety of hardware platforms and for interface to a variety of operating systems. In addition, the present invention is not described with reference to any particular programming language. It will be appreciated that a variety of programming languages may be used to implement the teachings of the invention as described herein. Furthermore, it is common in the art to speak of software, in one form or another (e.g. program, procedure, process, application, module, logic, etc.), as taking an action or causing a result. Such expressions are merely a shorthand way of saying that execution of the software by a computer causes the processor of the computer to perform an action or produce a result.

An e-mail request system method 200 shown in FIG. 2A begins by identifying and storing key dates in memory at block 201. The dates are created by the server. In another embodiment, a user may enter key dates into the e-mail request system. In yet another embodiment, the server may select key dates based upon a user's nationality. Upon reaching a key date, a message is sent to a user at block 203 requesting a response by the user. The message may be sent utilizing known electronic mail systems. If the user responds to the message, the server receives the transaction at block 207. The user may respond to the message by sending a return e-mail message. In another

* | embodiment, the user may access a future reminder and e-mail request system web site and post the response on the web site in a user area. If the user fails to respond, the server sends another message in accordance with a pre-determined schedule until a response is received. In response to a received transaction, the server processes the transaction at block 209. In one embodiment, the transaction may also be used to initiate the future reminder system at block 220. Once the transaction is processed, the e-mail request system ends at block 211.

An embodiment of a future reminder system method 220 is illustrated in the FIG. 2B flow diagram. The server receives a user transaction at block 221. The server assigns at least one key date based on the date the user online transaction was received at block 223. The server stores the transaction information and the key date in memory at block 225. When the assigned key date is reached, the server creates a message at block 227. The server sends the message at block 229. The server determines if a response has been received at block 231. If a response has been received, the transaction is processed at block 233. If no response is received, the server sends additional messages in accordance with a pre-determined schedule at block 229. Once the transaction has been processed, the process repeats at block 235.

Turning now to FIG. 2C, one embodiment of a method 250 for creating a message is illustrated. A message may consist of a plurality of transaction options. The server identifies the type of transaction previously stored in memory at block 251. The server associates similar transaction options and duplicates the original transaction in the message at block 253. It will be appreciated that the message may contain further unrelated transaction options without departing from the scope of the invention. The server publishes the message at block 255. The message may be posted in an area on a web site suitable for public viewing. In another aspect of the invention, the message may be contained in an area accessible for private viewing only. In yet another aspect of the invention, the message may be sent to a client using electronic mail.

One embodiment of a method 260 for processing transactions is illustrated in flow diagram FIG. 2D. The server receives an identifier for the user selected transaction option at block 261. The server determines whether compensation is required at block 263. The server may request a payment from the user when a type of transaction is

selected or the user may subscribe to a plan that allows use of the future reminder and e-mail request system for a single fee. If compensation is required, the server receives compensation information at block 265. The server may validate the compensation received from the user at block 267 and may disallow access to the future reminder and e-mail request system by the user until the validated compensation is received. In another embodiment, the owner of the server requires compensation from an advertiser upon displaying an advertisement as part of the online future reminder and e-mail system. In yet another embodiment, the owner of the server requires compensation to incorporate an advertiser's product into the transaction options as part of an online future reminder and e-mail system. It will be appreciated that other compensation schemes can be implemented on the server without exceeding the scope of the invention.

Once compensation has been validated or if no compensation is required, the server receives the uploaded transaction at block 269. Uploaded transactions may contain digital images such as digital photograph files, greeting card content, etc. The server determines whether the transaction requires customization at block 271. If customization is required, the server customizes the transaction at block 273. Customizing may consist of creating customized messages, customized borders, creating photo albums, digitally processing photograph files to resize, digitally processing photograph files to improve image quality, and customizing greeting cards. In another embodiment, transaction processing may consist of cataloging uploaded digital images by date, time, keywords, etc. It will be appreciated that other processing schemes can be implemented on the server without exceeding the scope of the invention. When the transaction has been processed, the server completes the transaction at block 275. In another aspect of the invention, an electronic greeting card or electronic message may be sent by the server to a plurality of recipients. Once the server has completed the transaction, the process is terminated at block 277.

An online future reminder and e-mail request system has been described that uses transaction tracking for routine cyclical transactions. Samples of embodiments of future reminder and e-mail request system methods have been described including an online e-mail request system and an online future reminder system. Additionally, the future

reminder and e-mail request system includes examples of methods for creating messages and for processing transactions.

Although specific embodiments have been illustrated and described herein, it will be appreciated by those of ordinary skill in the art that any arrangement which is calculated to achieve the same purpose may be substituted for the specific embodiments shown. This application is intended to cover any adaptations or variations of the present invention.

The terminology used in this application with respect to network architecture is meant to include all client-server environments. Therefore, it is manifestly intended that this invention be limited only by the following claims and equivalents thereof.

CLAIMS

What is claimed is:

1. A computerized method for a future reminder and e-mail request system comprising:

assigning a key date; (201/223)

creating a message based on the key date; and (227)

displaying the message. (203/229)

2. The computerized method of claim 1, wherein the key date is one of a plurality of key dates and the message is created when each of the key dates is reached.

3. The computerized method of claim 1 further comprising:
receiving an online transaction (221); and
storing the online transaction(2225) and an associated key date (223).

4. The computerized method of claim 3 wherein the associated key date is assigned (223) based on a received date of the received online transaction(221).

5. The computerized method of claim 1 wherein the key date comprises a user selected date.

6. The computerized method of claim 1 wherein the key date comprises a plurality of holidays, each of the plurality of holidays being selected from the group consisting of New Years Day, Martin Luther King Day, Presidents Day, Valentines Day, St. Patrick's Day, Sweetest Day, Easter, Cinco de Mayo, Memorial Day, Independence Day, Labor Day, High Holy Days, Columbus Day, Halloween, Veterans Day, Thanksgiving Day, Hanukkah, and Christmas Day.

7. The computerized method of claim 6 wherein the plurality of holidays are selected from a group consisting of national holidays based on a user's nationality.

8. The computerized method of claim 1 wherein creating a message further comprises:

associating a transaction option with the assigned key date.

9. The computerized method of claim 1 wherein creating a message further comprises:

associating the transaction (253) option with a stored online transaction; and duplicating the stored online transaction.

10. The computerized method of claim 1 further comprising:
receiving an uploaded transaction (269); and
completing the uploaded transaction (275).

11. The computerized method of claim 10 further comprising:
customizing the uploaded transaction.

12. The computerized method of claim 11 wherein customizing the uploaded transaction further comprises:

cataloging uploaded digital images by date, time, and keywords.

13. The computerized method of claim 11 wherein customizing the uploaded transaction further comprises:

customizing messages, borders, and greeting cards.

14. The computerized method of claim 11 wherein customizing the uploaded transaction further comprises:

creating a digital photograph album.

15. The computerized method of claim 11 wherein customizing the uploaded transaction further comprises:
processing a digital image to resize and improve the digital image quality
16. The computerized method of claim 1 wherein sending the message comprises:
publishing a transaction online (255) for public viewing.
17. The computerized method of claim 1 wherein sending the message comprises:
publishing a transaction online (255) for private viewing.
18. The computerized method of claim 1 wherein sending the message to a user comprises:
sending an electronic mail message utilizing an electronic mail system.
19. A computer-readable medium having computer-executable instructions to cause a computer to perform a method comprising:
identifying a key date (201/223);
creating a message associated with the key date (227);
sending the message(203/229); and
determining if a response has been received (231).
20. The computer-readable medium of claim 19, wherein the computer is a web site server and a future reminder and e-mail request system is viewable online from the server.
21. The computer-readable medium of claim 19, having further computer-executable instructions comprising:
receiving an online transaction (269).
22. The computer-readable medium of claim 21 having further computer-executable instructions comprising:

completing the online transaction (275).

23. The computer-readable medium of claim 21 having further computer-executable instructions comprising:

determining if a fee is required for the online transaction (263).

24. The computer-readable medium of claim 19 having further computer-executable instructions comprising:

processing the online transaction (273).

25. The computer-readable medium of claim 19 having further computer-executable instructions comprising:

0 | sending additional messages in accordance with a pre-determined schedule if no response is received (205/231).

26. A computerized system comprising:

a processor (150);

a memory (155) coupled to the processor (150) through a system bus (165);

a computer-readable medium coupled (160) to the processor (150) through the system bus (165); and

an online future reminder and e-mail request system process (200) executed from the computer-readable medium by the processor to cause the processor to identify a key date (201/223), to create a message (227) comprising transaction options associated with the key date, to send the message (203/229) comprising transaction options associated with the key date, to receive at least one selected transaction option from the transaction options (261), and to complete each of the at least one received selected transaction option (275).

27. The computerized system of claim 26, wherein the online future reminder and e-mail request system process further causes the processor to publish (119) each of the transaction options online.

34. The network server system (101) of claim 32, wherein the means for completing the uploaded transaction publishes the transaction on a web site for public viewing.

35. A method for receiving compensation for a server receiving an online transaction comprising:

determining an amount of compensation based on a type of transaction option (263);

requesting the amount of compensation; and

receiving the amount of compensation (265).

36. The method of claim 35 further comprising:

disallowing (267) access to a future reminder and e-mail system server until the amount of compensation is received.

37. The method of claim 35 further comprising:

validating the amount of compensation received (267).

38. The method of claim 35, wherein determining the amount of compensation comprises:

determining if a user subscribes to a plan offered by a future reminder and e-mail request system server; and

calculating the amount of compensation in accordance with terms of the plan.

39. A method for receiving compensation for a server comprising:

displaying an advertisement as part of an online future reminder and e-mail request system;

requesting an amount of compensation from an advertiser; and
receiving the amount of compensation.

40. The method of claim 39 further comprising:

incorporating products of the advertiser into transaction options as part of the online future reminder and e-mail request system.

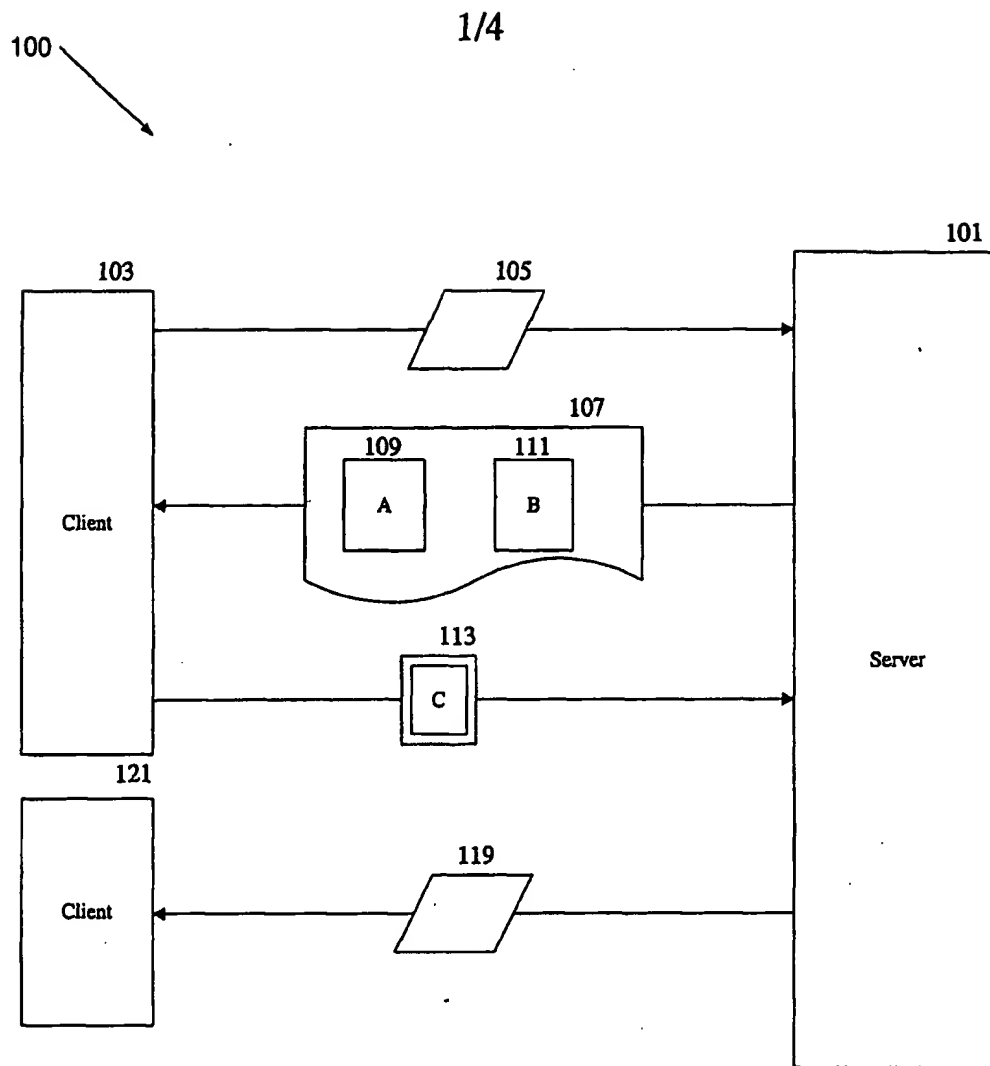


FIG. 1A

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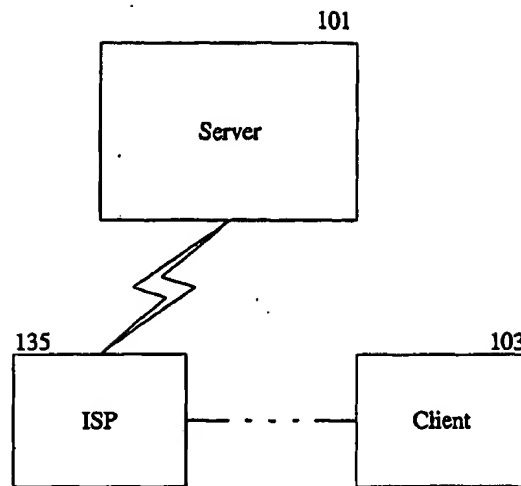


FIG. 1B

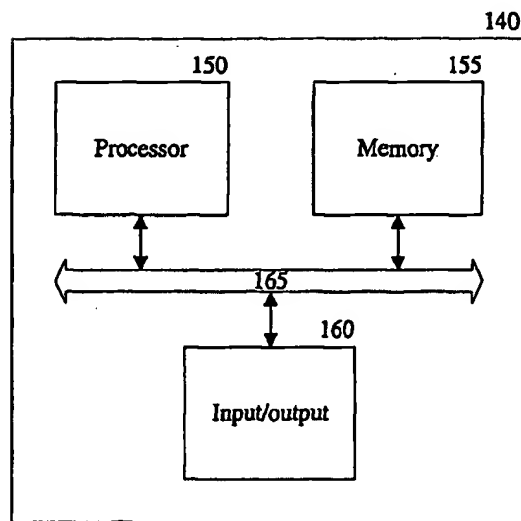
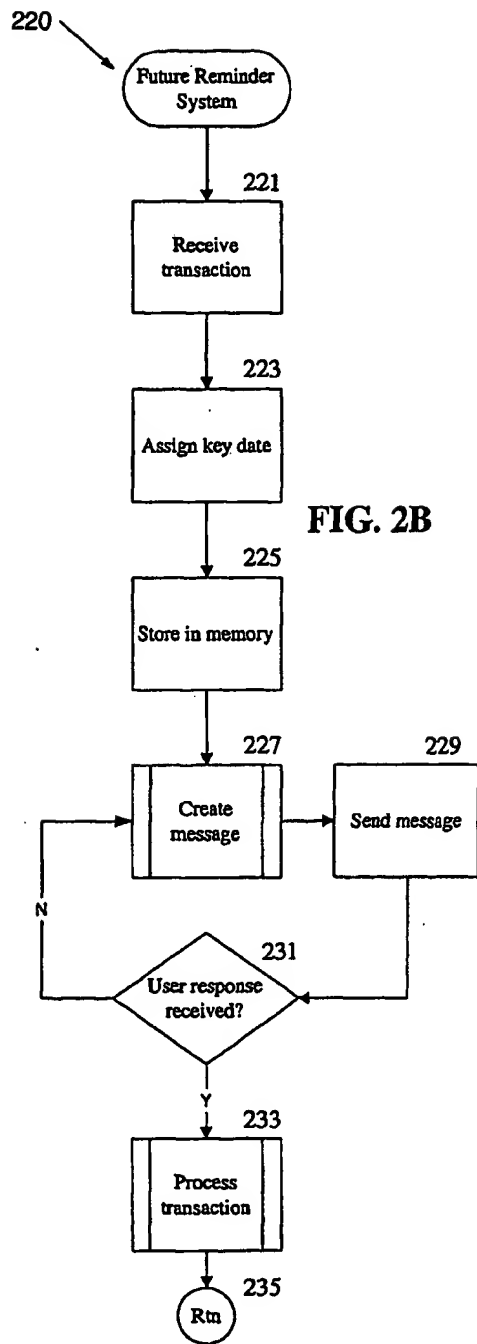
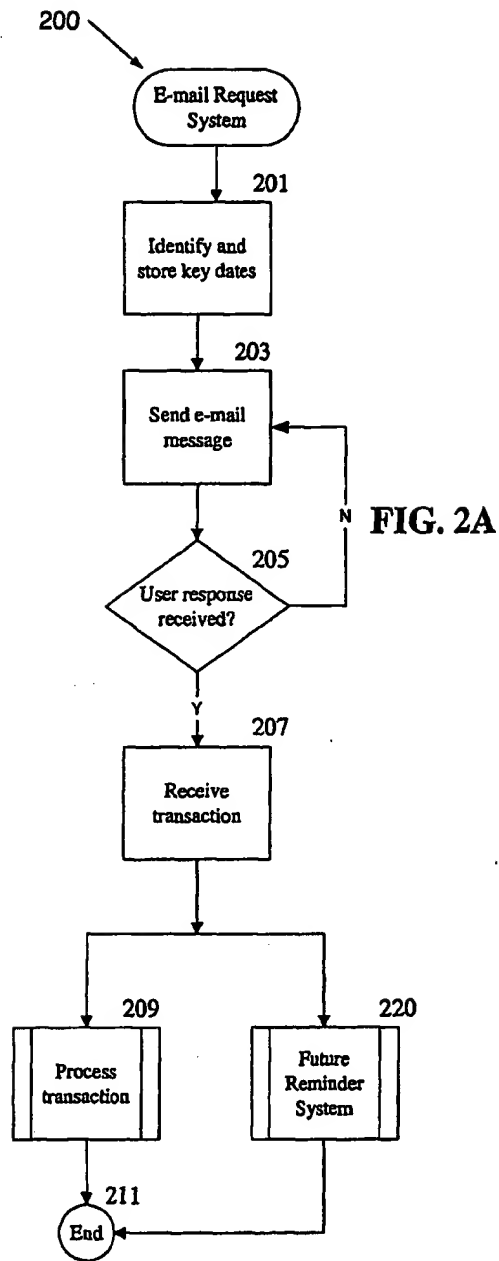


FIG. 1C



INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER																										
IPC(7) :G06F 13/00 US CL :709/206, 207; 705/26 According to International Patent Classification (IPC) or to both national classification and IPC																										
B. FIELDS SEARCHED																										
Minimum documentation searched (classification system followed by classification symbols) U.S. : 709/206, 207; 705/26																										
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C. DOCUMENTS CONSIDERED TO BE RELEVANT																										
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																								
Y	US 5,983,200 A (SLOTZNICK) 09 November 1999, col. 2, lines 19-29, col. 4, lines 65-67, col. 10, lines 42-46, and col. 16, lines 6-17.	1-40																								
Y	US 6,021,433 A (PAYNE et al) 01 February 2000, col. 8, lines 26-46, col. 30, line 35 - col. 31, line 15.	1-40																								
A	US 5,615,123 A (DAVIDSON et al) 25 March 1997, col. 7 line 66 - col. 8, line 39.	1-40																								
A	US 5,768,142 A (JACOBS) 16 June 1998, col. 6, lines 39-62 and col. 8, lines 12-34.	1-40																								
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																										
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer ZARNI MAUNG <i>James R. Matthews</i> Telephone No. 703-305-9600																								